



## Model 820457

### ULTRASONIC WIND SENSOR

**Met One's Model 820457 Ultrasonic Wind Sensor features durable, corrosion-resistant construction with sensitive ultrasonic transducers secured in a streamlined molded frame.** The 820457 is fully wind-tunnel tested and calibrated to provide reliable, accurate wind measurement.

Standard outputs include analog voltage output and RS-232 serial connections. For use in industrial settings where noise immunity is essential, calibrated 4-20 mA current and RS-485 serial outputs are also included. A variety of serial data formats are available, including ASCII text. SDI-12 model is also available-- please specify at the time of ordering.

For extended cold-weather use, Model 820458 features thermostatically controlled heaters in transducer and housing surfaces. Wind speed range reduced with the heated model.



#### APPLICATIONS:

- Ambient Air Monitoring
- Environmental Surveys
- Government
- Homeland Security & Military

#### ORDERING INFORMATION:

- 2D Unheated Sonic P/N: 820457
- Cable Assembly for 820457: 400047
- 2D Heated Sonic P/N: 820458
- Cable Assembly for 820458: 400048
- Mounting Kit: 63633
- 24Vdc Power Supply for 820458 heaters: 10898

**SPECIFICATIONS****Model 820457****Wind Speed**

<b>Range:</b>	Heated 0-65 m/s & Unheated 0-75 m/s
<b>Resolution:</b>	0.01 m/s
<b>Starting Threshold:</b>	0.01 m/s
<b>Accuracy:</b>	$\pm 2\% \pm 0.1$ m/s (30 m/s); $\pm 3\%$ (65m/s)
<b>Response Time</b>	< 0.25 seconds

**Wind Direction**

<b>Range:</b>	0 to 360 degrees
<b>Resolution:</b>	0.1 degree
<b>Starting Threshold:</b>	0.01 m/s
<b>Accuracy:</b>	$\pm 2$ degrees
<b>Response Time:</b>	< 0.25 seconds

**Serial Output:**

<b>Formats:</b>	RS232 or RS485
<b>Baud:</b>	ASCII, ASCII polled, NMEA, RMYT SDI -12
	1200, 4800, 9600, 19200, 38400

**Wind Units:**

<b>Wind Format:</b>	m/s, knots, mph, kmph
<b>Status Indicator:</b>	Speed & Direction or U & V
	Standard with ASCII & NMEA

**Analog Output**

<b>Range:</b>	0-5000 mV or 4-20 mA
<b>Analog Speed Scale:</b>	0-100 m/s
<b>Analog Direction Scale:</b>	0-360 or 0-540 degrees

**Output Update Rate:**

User Adjustable: 0.1 to 20 Hz

**Power Requirement**

<b>Sensor:</b>	10-30 VDC < 20 mA typical
<b>Heater:</b>	24 VDC, 2.5 A (Model 820458 Only)

**Environmental**

<b>Operating Temperature:</b>	-40 to +60°C
<b>Protection Class:</b>	IP65

**Physical**

<b>Dimensions:</b>	29 cm high x 11 cm wide
<b>Weight:</b>	0.4 kg (0.9 lb)
<b>Shipping Weight:</b>	1.6 kg (3.5 lb)

*Specifications are subject to change at any time.*